

Before the  
Federal Communications Commission  
Washington, DC 20554

In the Matter of	)	
	)	
Amendment to Part 97 of the Commission's	)	WT Docket No. 05-235
Rules To Implement WRC-03 Regulations	)	
Applicable to Requirements for Operator	)	RM-10781, RM-10782, RM-10783
Licenses in the Amateur Radio Service	)	RM-10784, RM-10785, RM-10786
	)	RM-10787, RM-10805, RM-10806
	)	RM-10807, RM-10808, RM-10809
	)	RM-10810, RM-10811, RM-10867
	)	RM-10868, RM-10869-RM-10870

**COMMENTS OF**  
**KARL W. BULLOCK, WA5TMC**

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## **SUMMARY**

The Commission has proposed the elimination of Element 1, the Morse Code element, as a requirement for obtaining an Amateur Radio License. Previously, the Commission had relaxed rules by eliminating Element 1b and 1c, and replacing it with a requirement only for what is now simply Element 1, a process which removed both the 13 and 20 word-per-minute requirements for General, Advanced and Extra Class licenses, and replacing them with a 5 word-per-minute exam.

For years, this discussion has been a major topic among Amateur Licensees, and there are strong feelings and opinions on both sides of the issue, and few with ambivalence. The Commission has chosen one side over the other, instead of choosing the somewhat “middle” ground proposed by the American Radio Relay League (ARRL), the largest single representative of Amateur Radio Operators in the United States. This Notice of Proposed Rulemaking should, at a minimum, be modified to retain Element 1 for the Extra Class License exam – essentially the ARRL proposal – for the reasons herein.

## **I. EMERGENCY COMMUNICATIONS**

Even with all the advances in technology, continuous-wave telegraphy (cw) is the simplest and most reliable method of “getting the message through”. No other mode of wireless communications can match the combination of simplicity and accuracy as can CW. One of the primary missions of Amateur Radio is its long history, and its future promise, of reliable emergency communications when all other options fail. Our society has chosen, and with good reasons, digital and satellite communications over traditional analog and shortwave, and indeed, Amateur Radio has not only embraced these modes, but has pioneered many of them. However, even with recent advances in construction technologies, these modes are still comparatively complicated and prone to problem during disasters and other emergency situations. Prudence would suggest that, if for no other reason than having the availability of a simple, yet reliable communications method in times of extreme emergency, CW should be an available option. While the Commission is not requiring the elimination of CW as a communications mode, the elimination of the testing requirement will eventually lead to a severe lack of CW operators on

the amateur bands, which might make a significant difference in the event of necessary communications during an emergency. It is seemingly not a popular thing in our current society to look at the long term implications of a particular decision in deference to immediacy, but the Commission is a place where such long term implications are seriously considered. It will do no good to have the availability of a piece of radio equipment capable of transmitting and receiving continuous-wave telegraphy if there is no one who knows how to send and receive messages using these signals.

If for no other reason than that at some place in our society, this capability is available in times of extreme emergency, the Morse requirement for an amateur radio license should not be entirely eliminated.

## II. HISTORICAL PRESERVATION

Every other service has eliminated Morse code, and currently there are no military entities that require it (the Navy was the last to go). Ships at sea are not required to have someone with knowledge of Morse telegraphy aboard. Aircraft are under no such requirement. Indeed, the Commission itself still issues a commercial telegraphy license solely for those few still operating commercial CW installations (primarily shipping concerns). Even in this area, many of these stations have been closed and their sites essentially abandoned. In a few short years, there will be no commercial telegraphy installations operating, few communications operators who have a knowledge of Morse, and no governmental requirements at all for this particular mode of communications. This fact has been recognized by the U.S. Coast Guard on their website in a discussion of the institution GMDSS signaling and the elimination of Morse requirements with the following quote: “..It spelled the end of Morse code communications for all but a few users, such as amateur radio..”<sup>1</sup>

During a recent episode of The Tonight Show on NBC, a demonstration of Morse versus text-messaging over cellular service (SMS messaging) showed that a proficient Morse operator could accurately transmit a plain text message much faster than a “champion” text-messenger. Though presented as a humorous episode in this particular program, it nevertheless demonstrated not

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<sup>1</sup> <http://navcen.uscg.gov/marcoms/gmdss>

only the fact that CW is useful in emergency situations, but that it has not outlived its historical significance. While not specified in the Commission's rules, amateur radio is one of the few places where knowledge of the history of wireless communications still exists and is celebrated. While, again, the Commission is not disallowing CW communications, the elimination of its requirement for licensing will inevitably result in its demise. With this requirement disappearing in requirements for all others, amateur radio will soon be the last place where Morse telegraphy is practiced, and if the licensing requirement is eliminated, many will never know its allure, or maybe even its existence.

For this reason alone, the Morse testing requirement should not be entirely eliminated from the Commission's rules for amateur radio licensees.

### **III. OPERATOR PROFICIENCY**

While related to previous reasons, the elimination of the Morse requirement will result in decreased communications proficiency on the amateur bands. The ability to communicate under less-than-ideal conditions is an obvious advantage amateur radio holds over other services. Multiple-mode capabilities are a tremendous advantage both in times of emergency, and other times when conditions are not the best. Indeed, the development of VHF and microwave bands is pioneered with communications using Morse rather than voice for obvious reasons. New hams, under the Commission's proposed rules, would lack this capability as a licensing requirement, thus vastly reducing the pool of amateurs who can utilize this method for communications both in emergencies, and in times other than emergency. Additionally, such daily mundane tasks as identifying repeater callsigns will no longer be possible for more of those who obtain a license without the Morse requirement, as is now the case for non-HF licensees. Some digital modes, particularly PSK-31, are well-suited to weak-signal work, but are not well-suited to cutting-edge equipment on UHF and SHF bands, and would not only unnecessarily increase the complexity of such equipment, but add to the instability of "homebrew" equipment utilized to explore new frequency ranges.

For the reason of maintaining high operator proficiency alone, the Morse testing requirement should not be entirely eliminated from the Commission's rules for amateur radio licensees.

#### **IV. OPERATOR INCENTIVE**

The incentive mentioned here is an incentive to value one's license, rather than an incentive to obtain a certain license. That which requires work to obtain is more valued than that which does not. Again, it has seemingly become popular in our society to make such things easier without taking into consideration that such thinking cheapens rather than adds value. I obtained my license when the requirement was to take in the exam in front of an FCC examiner. As such, I place high value on my license, and work to ensure my on-air activities conform to FCC regulations, and to good amateur practice. There has been a noticeable decline in such thinking in recent years, and I would submit that the relaxed licensing requirements have contributed to this decline. While I hold absolutely no contempt for those licensed under these relaxed requirements, and have indeed used it to recruit new licensees, I have talked to many who lament the very relaxation they were licensed under – my wife Amy, N5TBB, being one! There have been many proposals to strengthen the written exam, including proposals to once again cease to make the question pool public, and these proposals would certainly raise the current knowledge level for new licensees. However, at least for Amateur Radio's highest class license, not only should the written exam be comprehensive, but a requirement to learn a minimal amount of Morse as a licensing requirement would add to the inherent value of such a license.

For this reason alone, the Morse testing requirement should not be entirely eliminated from the Commission's rules for amateur radio licensees.

## CONCLUSION AND PROPOSAL

I fully understand the Commission's drive, in light of the relaxed ITU regulations, and the interest in the amateur community, to eliminate Morse as a testing requirement for most amateur licenses. I even understand the ITU's elimination of such a requirement for licensed operation in the HF spectrum. However, elimination of the requirement entirely weakens the service for emergency purposes, erodes the historical significance of Morse in wireless communications, results in reduced operator proficiency, and cheapens the licenses where this requirement no longer exists. Each of the reasons stated in this document make a case for keeping at least a minimal testing requirement for Morse for some amateur licenses. However, when considered together, the accumulated effect makes a compelling case for retaining Morse in at least some form.

In 2004, the ARRL proposed keeping a rudimentary 5 word-per-minute Morse exam for only the Extra Class License, which originally required an 18 word-per-minute exam. The League supported as a matter of necessity the elimination of the requirement for other licenses. However, for Amateur Radio's most prestigious license, the Extra Class, learning Morse code at a measly 5 words-per-minute is not a disincentive to strive for this license, and with the Amateur community evenly split on the morse testing requirment, this would seem to be the prudent choice as well.

Therefore, it is my proposal that the Commission modify its Notice of Proposed Rulemaking, and maintain the requirement of Element 1 for those wishing to obtain the Extra Class Amateur Radio License.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Karl Bullock', with a long horizontal flourish extending to the right.

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